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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/822,007	04/12/2004	Hideaki Shimoda	251774US2	1570
22850	7590	08/08/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			GLENN, KIMBERLY E	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/822,007

Applicant(s)

SHIMODA, HIDEAKI

Examiner

Kimberly E. Glenn

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/12/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/12/04 & 7/20/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

Figures 14-16 should be designated by a legend such as --Conventional Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

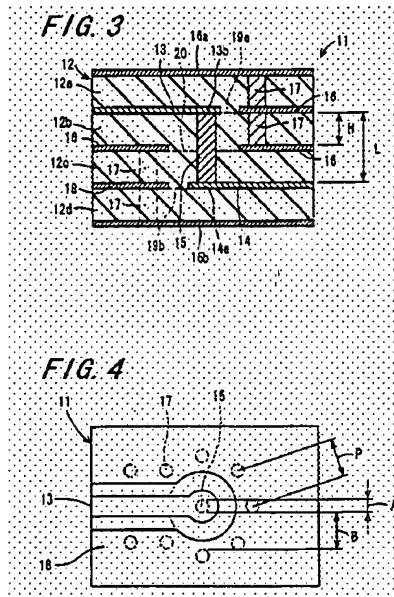
(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-4 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Shirasaki US Patent 6,700,789 B2.

Shirasaki disclose in figures 3 and 4, a high frequency wiring board comprising a first conductor line 13, the width of the circular edge portion 13b thereof being different from the width of remaining portion thereof; and a second conductor line 14 connected to the edge portion of said first conductor line. The first and second high conductor lines 13 and 14 are disposed in different layers of a dielectric substrate 12 respectively. The edge portion of the first conductor line is arranged to overlap with the second conductor line. A through conductor 15 is provided to connect said edge portion 13b of said first conductor line 13 to the edge portion 14b of said second conductor line 14. The second conductor line has circular edge portion 14b that has a width, which is different from a width of remaining portion thereof. Conductors 6 are provided to for shortening a distance between a ground conductor 16 and first conductor line 13. The edge portions of first and second conductor lines overlap each other. (Column 4 line 19 through column 6; line 13)



The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

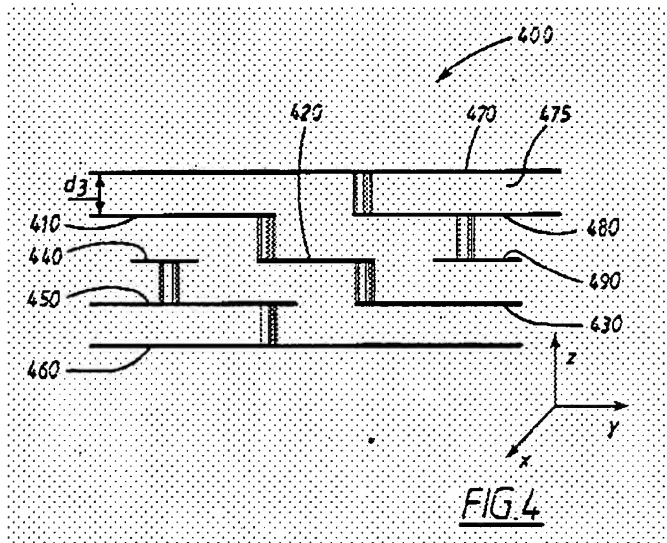
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5,10,11 and 14 are rejected under 35 U.S.C. 102(B) as being anticipated by Harju et al US Patent 6,522,214 B1.

Harju et al disclose in figure 4, a transmission line arrangement comprising a first conductor section 410 in a layer of a dielectric substrate 475; a second conductor section 430 in a different layer of a dielectric substrate; a third conductor section 420 provided in a layer between said first conductor section and said second conductor section wherein one edge of said third conductor section 420 is overlapped with said first conductor section 410 and another edge thereof is overlapped with the second conductor section 430, a first connection conductor for connecting said first conductor

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section 410 to the one edge of said third conductor section 420 and a second connection conductor for connecting said second conductor section 430 to the another edge of said third conductor section 420. Harju et al further disclose a conductor 450 for shortening a distance between said first conductor section and a ground conductor 460. (Column 7; line 8 through column 9; line 3)



The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

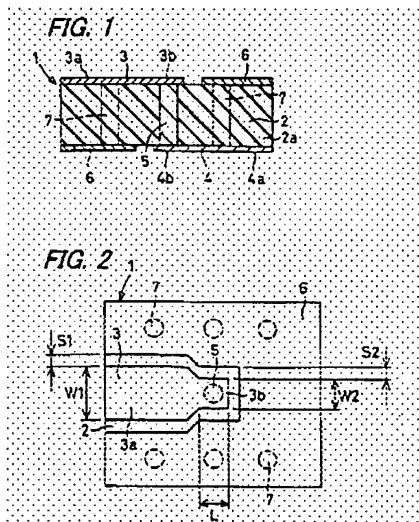
The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

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Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 12 and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Shirasaki US Patent 6,726, 488 B2.

Shirasaki disclose in figure 1 and 2, a high frequency wiring board comprising of a first line conductor 3 having a width of an edge portion 3b thereof being different from a width of another portion thereof; and a second line conductor 4 different from the first line conductor 3, which is connected to the edge portion of the first line conductor. The first and second line conductor disposed in different layers of a dielectric substrate 2 respectively. The edge portion 3b the first line conductor is arranged to overlap with the second line conductor; and a through conductor 5 is provided to connect said edge portion of said first line conductor to said edge portion of said second line conductor. (Column 5; line 7 through column 6; line 56)



Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harju et al US Patent 6,522,214 in view of Shirasaki US Patent 6,726,488.

The primary reference, Harju et al disclose in figure 4, a transmission line arrangement comprising a first conductor section 410 in a layer of a dielectric substrate 475; a second conductor section 430 in a different layer of a dielectric substrate; a third conductor section 420 provided in a layer between said first conductor section and said second conductor section wherein one edge of said third conductor section 420 is overlapped with said first conductor section 410 and another edge thereof is overlapped with the second conductor section 430, a first connection conductor for connecting said first conductor section 410 to the one edge of said third conductor section 420 and a second connection conductor for connecting said second conductor section 430 to the another edge of said third conductor section 420. Harju et al further disclose a conductor 450 for shortening a distance between said first conductor section and a ground conductor 460. (Column 7; line 8 through column 9; line 3)

Thus, Harju et al is shown to teach all the limitation of the claims with the exception the edge portion of the first signal line connected to the first connection conductor have a line width different from a line width of another portion thereof, the

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edge portion of the first signal line connected to the first connection conductor have a line width different from a line width of another portion thereof, the width of the third signal line is set between the first signal line and the second signal line.

Shirasaki disclose in column 3 lines 48-55 that the conductor width of the one end of the line conductor, that is, the width W2 is made to be narrower than the width W1 of the line portion having a predetermined characteristic impedance, whereby it is possible to decrease a stray capacity at the connection of the one end of the line conductor and the through conductor, and it is possible to match characteristic impedance of the connection of the line conductor and the through conductor.

Therefore, one of ordinary skill in the art would have found to obvious to for the edge portion of the first conductor section (second conductor section) connected to the first through conductor (second through conductor) have a line a width different from a line width of another portion and the width of the third conductor section being set between the first and second conductor sections.

The motivation for these modification would have been to control the impedance between the first, second and third conductor section.

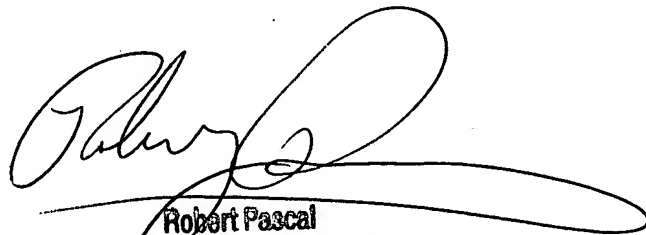
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E. Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimberly E Glenn
Examiner
Art Unit 2817

keg



Robert Pascal
Supervisory Patent Examiner
Technology Center 2800